the project?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY, DEPARTMENT OF ELECTRONICS AND DEPARTMENT OF OCEAN DEVELOPMENT AND MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS (SHRI P. R. KUMARAMANGALAM): (a) to (e) The Indian Vaccines Corporation Limited (IVCOL) was incorporated under Joint Venture company during March 1989 to manufacture viral vaccines with French assistance after taking necessary Government approvals. It has been promoted by Department of Biotechnology (Govt. of India), Indian Petrochemicals Corporation Limited (IPCL) and Pasteur Mareiux Serums & Vaccines (PMSV). So far, civil construction of the plant building at the project site in Gurgaon has been completed to the extent of 42% and scientific and administrative personnel have bee recruited. The first batch of the scientists have undergone comprehensive training in vaccine production and other technologies at PMSV, Lyon, France. The expenditure incurred is about Rs. 22 crores. The unit was initially to produce Measles vaccine (20 million doses), Vero Cell based inactivated polio vaccine (IPV) (10 million doses), Rabies vaccine (2 million doses) and quadruple vaccine (DPTP) (40 million doses). In 1991-92, Ministry of Health & Family Welfare, based on the recommendations of WHO, has recommended to use only Oral Polio Vaccine (OPV) for polio control in India. This necessitated a review of the "product mix". Also it was further considered to take up indigenous production of Vero Cell based OPV instead of injectable polio vaccine and Quadruple vaccine. A joint Indo-French committee has been set up to redefine the IVCCL project based on new "product mix". The committee has submitted its report in Feb. 1993. At present the three promoters are negotiating on various options available for the continuation of the project.

Approval of biotechnology projects

4388. SHRI IQBAL SINGH:
SHRI SURESH PACHOURI:

Will the PRIME MINISTER be pleased to state:

(a) whether India has emerged as a major player in the field of biotechnology;

(b) if so, whether more than 295 projects have been approved by the Centre during the last five years; and

(c) if so, what is the total amount of investment involved in these projects?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY, DEPARTMENT OF ELECTRONICS AND DEPARTMENT OF OCEAN DEVELOPMENT AND MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS (SHRI P. R. KUMARAMANGALAM): (a) to (c) Yes Sir, so far about Rs. 163.56 crores have been released for these projects.

Preventive measures against flood and drought

4389. SHRI KRISHNA KUMAR BIRLA: Will the PRIME MINISTER be pleased to state:

(a) whether Government are aware of the study of the U.S. National Centre for Atmospheric Research Clorado (USA) reported in Economic Times dated 7th June, 1993 predicting that the country would face more floods and droughts despite greater rainfall;

(b) if so, whether Government have made any analytical study of the report; and

(c) if so, what are the details thereof stating the regions likely to face more floods and drought and the preventive measures proposed to be taken by Government?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY, DEPARTMENT OF ELECTRONICS AND DEPARTMENT OF OCEAN DEVELOPMENT AND MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS (SHRI P. R. KUMARAMANGALAM): (a) Yes, Sir.

(b) The studies conducted by US National Centre for Atmospheric Research is on Asian summer monsoon under doubled carbon-dioxide conditions with a global coupled ocean-atmopshere climate model. Their studies have shown an increase in monsoon precipitation by 6.3% under double carbon-dioxide conditions. This lies within the natural variability of the south west monsoon rainfall. Thus, inference brought out in the study has limited practical significance. Moreover the model outputs are still not relevant to provide operational predictions at this stage as applicability and dependability of these models are yet to be established.

(c) Does not arise.